

UNCLASSIFIED

PROCESSING DATE--02OCT70

2/2 032

CIRC ACCESSION NO--AA0109748
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. MATERIAL FOR WELDING TI ALLOYS WAS
USED AS AN ADDITIVE DURING THE WELDING OF ARTICLES OF COMPLEX
CONFIGURATION. THIS MATERIAL CONSISTED OF TI POWDER 95-7.5 AND CAF SUB2
2.5-5 WT. PERCENT. A RESIN EQUALS 80-100 WT. PERCENT OF THE DRY MIXT.
WAS USED AS A BINDER.

UNCLASSIFIED

027 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--DUCILITY OF HIGH STRENGTH CONSTRUCTIONAL ALLOY STEELS -U-
AUTHOR--(U5)-BRAUN, M.P., BORISOV, G.P. KRUKOVAYA, G.N., MORZHARETTO,
A.A., SERGEYEV I.V.
COUNTRY OF ORIGIN--USSR
SOURCE--IZV. VYSSH. UCHEB. ZAVED., CHERN. MET. 1970, 13(2), 123-5
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR
TOPIC TAGS--STRUCTURAL STEEL, IMPACT STRENGTH, STEEL HEAT TREATMENT, STEEL
HARDENING, METAL CASTING, ALLOY STEEL, CHROMIUM STEEL, MANGANESE STEEL
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--L994/1787 STEP NO--UR/0148/70/013/002/0123/0125
CIRC ACCESSION NO--AT0115616
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--23OCT70.

2/2 027

CIRC ACCESSION NO--AT0115616

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE IMPACT STRENGTH OF THE CAST CONSTRUCTION STEEL WAS INCREASED BY APPLYING OPTIMAL ALLOYING AND HEAT TREATMENT WHILE MAINTAINING 36-37 HRC HARDNESS. EIGHT GRADES OF STEEL (CR 1.08-1.66, SI 0.40-2.79, MN 1.58-2.29PERCENT) WERE MELTED IN A BASIC INDUCTION FURNANCE DEOXIDIZED WITH 0.1PERCENT AL, AND CAST. THE CASTINGS WERE ANNEALED 6 HR AT 950DEGREES AND CUT INTO BARS WHICH WERE NORMALIZED AT 950DEGREES. BILLETS WERE (1) QUENCHED FROM 930-40DEGREES, (2) NORMALIZED AT 930-40DEGREES WITH SUBSEQUENT TEMPERING AT 200DEGREES, OR (3) HEATED 1 HR AT 300-320DEGREES AND QUENCHED IN MOLTEN SALTPETER. THE IMPACT STRENGTH AND HARDNESS WERE DETD. AFTER EACH OF THE 3 HEAT TREATMENT CONDITIONS: A STEEL AT GIVEN CONDITIONS AFTER LOW TEMP. TEMPERING MAY HAVE A LARGER OPTIMUM CONC. OF CR, MN AND SOME OTHER ALLOYING ELEMENTS THAN AFTER MEDIUM OR HIGH TEMP. TEMPERING. THE OPTIMUM CONCNS. OF THE ALLOYING INGREDIENTS ARE INTERRELATED.

FACILITY: INST. PROBL. LIT'VA, KIEV, USSR.

UNCLASSIFIED

1/2 010 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--INTERCHANGEABILITY OF THERMO BIMETALLIC PLATES -U-

AUTHOR--(02)--MOSALOV, A.N., TOYGANBAYEV, YE.A.

COUNTRY OF INFO--USSR

SOURCE--STANDARTY I KACHESTVO, 1970, NR 5, PP 45-48

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR

TOPIC TAGS--BIMETAL, TECHNICAL STANDARD, PRECISION INSTRUMENT INDUSTRY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1997/1556

STEP NO--UR/0422/70/000/005/0045/0048

CIRC ACCESSION NO--AP0120335

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--23OCT7

2/2 010

CIRC ACCESSION NO--AP0120335

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ACCURACY OF MANUFACTURE OF THERMO
BIMETALLIC PRATES IS CONSIDERED IN RELATION TO THEIR FUNCTIONAL
INTERCHANGEABILITY. THE ARTICLE IS USEFUL TO DESIGNERS, PRODUCTION
ENGINEERS AND STANDARDIZATION WORKERS IN METALLURGY AND INSTRUMENT
ENGINEERING.

UNCLASSIFIED

1/2 039 UNCLASSIFIED PROCESSING DATE--090CT70
TITLE--STATISTICAL ANALYSIS OF THE DECARBURIZATION DYNAMICS OF A MOLTEN
METAL --U-
AUTHOR--(05)--KAGANDV, V.YU., SURGUCHEV, G.D., DERKACHEV, YE.N., MOSALOV,
G.I., TITOV, V.I. M
COUNTRY OF INFO--USSR
SOURCE--IZV. VYSSH. UCHEB. ZAVED., CHERN MET. 1970, 13(1), 167-71
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--DECARBURIZATION, LIQUID METAL, STATISTIC ANALYSIS, OXYGEN,
CARBON, FLUID DYNAMICS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1981/0594 STEP NO--UR/0148/70/013/001/0167/0171
CIRC ACCESSION NO--AT0050601
UNCLASSIFIED

2/2 039

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AT0050601

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. REMOVAL OF C FROM A LIQ. METAL IS A COMPLEX PROCESS, NOT ALWAYS SUSCEPTIBLE TO RECOGNIZED FORMS OF ANAL. RESULTS ARE GIVEN OF STATISTICAL ANAL. OF RANDOM FUNCTIONS DETG. THE DYNAMICS OF DECARBURIZATION OF FUSED METAL BY THE INTRODUCTION OF O. THE CONNECTION BETWEEN AMT. OF O ADDN. AND RATE OF DECARBURIZATION ($U(T)-V(T)$) IS DETD., THOUGH THIS IS DIFFICULT IN VIEW OF THE MULTIPLE PROBABILITY SURFACES OF THE RANDOM FUNCTIONS, AND HENCE, ONLY THE SIMPLEST APPROXNS. CAN BE EXAMD. CURVES ARE GIVEN TO COMPARE THE MATH. EXPECTATION AND MEAN SQUARE DEVIATIONS OF EXPTL. MELTS WITH RESULTS ACTUALLY OBTAINED. THE C CONTENT EXERCISES ONLY A SMALL EFFECT ON THE MATH. EXPECTATION OF $V(T)$. DECARBURIZATION IS A NONSTATIONARY EFFECT FOR STEEL MELTS, OWING TO A COMBINATION OF INTERNAL COMPN. FACTORS.

UNCLASSIFIED

1/2 020 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--RADIOLYSIS OF 1,HEXADECANE AND 1,OCTADECANETHIOLS -U-

AUTHOR-(03)-CHIRAKADZE, G.G., NANOBASHVILI, YE.M., MOSASHVILI, G.A.

COUNTRY OF INFO--USSR

SOURCE--SOOBSHCH. AKAD. NAUK BRUZ. SSR 1970, 57(2), 341-4

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY, NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--RADIOLYSIS, DECANE, THIOL, X RAY, GAMMA RADIATION, SULFIDE,
SULFONIC ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3007/0797

STEP NO--UR/0251/70/057/002/0341/0344

CIRC ACCESSION NO--AP0136231

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--04DEC70

2/2 020

CIRC ACCESSION NO--AP0136231

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE COMPODS., (I) AND (II), RESP., WERE EXPOSED TO X AND GAMMA RAYS. I HAVING RECEIVED A DOSE OF 2.2 TIMES 10 PRIME19 OR 3.6 TIMES 10 PRIME19 EV-ML SHOWED A CONVERSION YIELD OF 0.4 TIMES 10 PRIME NEGATIVE3 OR 0.8 TIMES 10 PRIME NEGATIVE3 MOLE-L., RESP. I DISSOLVED IN ORG. SOLVENTS WAS CONSIDERABLY MORE SENSITIVE TO CHANGES, THE EXTENT BEING A FUNCTION OF SOLVENT POLARITY: A 0.008M SOLN. IN ETOH HAVING RECEIVED A DOSE OF 0.9 TIMES 10 PRIME19 OR 3.6 TIMES 10 PRIME19 EV-ML SHOWED A DECOMP. OF 0.75 TIMES 10 PRIME NEGATIVE3 OR 2 TIMES 10 PRIME NEGATIVE3 I MOLE-L., AND A 0.008M SOLN. IN ISOCTANE UNDER THE SAME CONDITIONS, 0.49 TIMES 10 PRIME NEGATIVE3 OR 1.2 TIMES 10 PRIME NEGATIVE3 I MOLE-L., RESP. DOUBLING THE CONC. OF I NEGLIGIBLY RAISED THE CONVERSION OF I. II BEHAVED SIMILARLY WHEN TESTED UNDER SIMILAR CONDITIONS. THE MAIN CONVERSION PRODUCTS WERE THE CORRESPONDING DISULFIDES (SULFIDES, SULFONIC ACIDS, AND H SUB2 S WERE FORMED ONLY IN MINOR AMTS.). THE COMPARISON OF THESE DATA WITH THOSE FOR LOWER MOL. WT. HOMOLOGS SHOWS THAT THE EFFECTS OF MOL. WT. DIMINISHES SHARPLY STARTING WITH I AND THE HIGHER THIOLS RESEMBLE RADIATION STABLE HYDROCARBONS IN MANY RESPECTS. NEORG. KHIM. ELEKTROKHIM., TBILSI, USSR.

FACILITY: INST.

UNCLASSIFIED

USSR

UDC: 621.791.011

GORDAN', G. N., DZYKOVICH, I. Ya., MAKARA, A. M., MOSENDZ, N. A., and SARZHEVSKIY, V. A.

"High-Temperature Chemical Inhomogeneity in the Weld-Affected Zone"

Moscow, Fizika i Khimiya Obrabotki Materialov, no 6, Nov-Dec 70, pp 114-119

Abstract: An analysis is presented of regularities in the development of high-temperature chemical microinhomogeneities on heating specimens of heat-resistant steels. The heating was carried out in welding thermal cycles to temperatures observed in the weld-affected zone of real welds. The steels involved were 30KhGSNA, 42Kh2GSNMA, 28Kh3SNMVFA, and others. The specimens measured 5 x 5 mm. The magnitude of the chemical inhomogeneity formed on high-temperature heating of rolled steels. the inhomogeneity of the weld-affected zone of real welds appear to be comparable to that of a dendritic inhomogeneity which generally develops in the crystallization of welds and ingots of a similar composition. The formation of a chemical inhomogeneity along the grain boundaries on high-temperature heating of steels, and the redistribution and the changes in the shape of the nonmetallic

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USSR

GORDAN', G. N., et al, Fizika i Khimiya Obrabotki Materialov, no 6,
Nov-Dec 70, pp 114-119

inclusions have an adverse effect on the properties of the weld-affected
area adjoining the weld promoting the generation and propagation of micro
cracks.

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USSR

UDC 621.382.3

KOPYL, G. F., MOSENKIS, L. M.

"Forecasting the Stability of Noise in Transistor Circuits"

Kiev, Pribory i sredstva avtomatiki (Devices and Means of Automation), "Nauk. dumka," 1970, pp 103-112 (from RZh-Elektronika i yeye primeneniye, No 3, March 1971, Abstract No 3B197)

Translation: The dependence of the noise factor of combined transistor circuits on the internal resistance of a signal source is determined. The minimum noise level of the circuit is observed when the magnitude of the resistance of the signal source is close to the magnitude of the impedance input of the circuit. Change of the noise factor in time is explained by the instability of the flicker noise of a transistor caused by irreversible changes in the body and on the surface of semiconductor devices. 4 illustrations, 6 references. N.K.

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Welding

USSR

UDC 621.791.75:004.17

ASNIS, A. YE., IVASHCHENKO, G. A., Institute of Electric Welding
imeni Ye. O. Paton, Academy of Sciences Ukrainian SSR, and
MOSENKIS, YU. G., Leninskaya Kuznitsa Plant

"Properties of Welded Joints With High-Strength Welds"

Kiev, Avtomaticheskaya Svarka, No 3, Mar 71, pp 15-17

Abstract: The properties of low-carbon steel welded joints with high-strength welds were studied under the condition of retaining sufficient weld plasticity. It is shown that under this condition, high-strength welds do not differ from joints with ordinary welds. Micromechanical test data show the variation of mechanical properties of the joint in the weld and the weld-affected zone during welding by UONI-13/45 electrodes, Sv-08G2S wire in carbon dioxide, ANP-1 (ANV-70) electrodes, and Sv-08KhGSMP wire in carbon dioxide. For comparison of the deformability of welded joints with ordinary and high-strength welds, samples were manufactured with a two-way bead forming in a groove (type 1) and 1/2

USSR

ASNIS, A. YE., et al., Avtomaticheskaya Svarka, No 3, Mar 71, pp 15-17

butt joints with complete penetration (the weld of ordinary strength) and with poor penetration to 40 percent of the cross section of the specimen (high-strength weld) from which type 2 specimens were made. A true stress diagram is presented for the type 2 samples using various electrodes and wire. It is noted that tensometric measurements of the stresses in the welded joint under tension demonstrated that in the initial stage of plastic flow the stress growth rate in the basic metal, the weld-affected zone, and the weld is different. As a result of low plasticity of welds made by chalk-coated electrodes, cracks occurred in the welds with insignificant strain. In high-strength welds made by ANP-1 electrodes and Sv-06KhGSMF wire no cracks occurred during this stage.

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B. Graph Theory

UDC: 519.1

USSR

MOSESYAN, K. M.

"Some Theorems on Strongly Based Graphs"

Dokl. AN ArmSSR (Reports of the Academy of Sciences of the Armenian SSR), 1972, 54, No 5, pp 241-245 (from RZh-Kibernetika, No 5, May 73, abstract No 5V468 by V. Titov)

Translation: If the edges of an unoriented graph can be assigned an orientation so that it becomes a basis graph of partial ordering, we shall say that the graph has a strongly basing orientation. A graph having a strongly basing orientation is called strongly based. For strong basing of a planar graph it is necessary and sufficient that it contain no triangles.

Theorem 1. If the graph is strongly based and there exists a strongly basing orientation such that the length of the simplest path is equal to p then there exists an even number of no less than $p+1$ different strongly basing orientations in each of which the length of the simplest path is not greater than p .

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USSR

MOSESYAN, K. M., Dokl. AN ArmSSR, 1972, 54, No 5, pp 241-245

Corollary 1. If a (finite) graph is strongly based, then for an arbitrary vertex α there exists at least one strongly basing orientation such that in the resultant oriented graph all arcs incident on α emerge from α (converge on α).

Corollary 2. If a graph is strongly based, then there exists for it an even number not less than the chromatic number of the graph of different strongly based orientations. See also RZhMat, 1972, 10V356; 1973, 1V524. There are misprints in the bibliography and in the references to the bibliography.

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UDC 621.791:338.45

USSR

MOSENKIS, Yu. G., "Lenin Forge" Plant, ASNIS, A. YE., and KHARCHENKO, P. F.,
Institute of Electric Welding imeni YE. O. Paton, Academy of Sciences UkrSSR

"Efficiency of Using New Welding Materials for Corner Joints With Reduced Cross
Section"

Kiev, Avtomaticheskaya Svarka, No 9, Sep 70, pp 61-63

Abstract: A study was made of the economy of welded constructions with reduced amounts of weld metal. In square Tee-joints, in the absence of bevelled edges, the amount of weld metal can be reduced by reducing the fillet weld size. This can be done by using electrode materials of higher strength, which would ensure adequate plasticity of the weld. A table shows the economy of reducing fillet weld size in manual and semi-automatic welding in CO₂, using UONI-13/45 and ANP-1 electrodes and Sv-08G2S and Sv-08KhGSMF wires. A figure shows the technological cost of 1 km of square Tee-joint by semi-automatic welding in CO₂, depending on fillet size.

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1/2 013 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--PREPARATION OF SHELL MOLDS BY USING ETHYL SILICATE 40 FOR INVESTMENT CASTING -U-
AUTHOR--(05)--OZEROV, V.A., SAKODYNSKIY, K.I., SHPRITS, B.B., MOSEVA, L.I.,
BERKOVSKIY, V.M.
COUNTRY OF INFO--USSR
SOURCE--LITEINOE PROIZOD. 1970, 2, 14-15
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR
TOPIC TAGS--SHELL MOLD, INVESTMENT CASTING, ORGANIC SILICATE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1996/1735 STEP NO--UR/0128/70/002/000/0014/0015
CIRC ACCESSION NO--AP0118713
UNCLASSIFIED

2/2 013

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0118713

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE APPLICATION OF ET SILICATE-40 TO SHELL MOLDS MADE IT NECESSARY TO FOLLOW THE PROCESSES OCCURRING DURING THE PREPN. OF THE BONDING SOLN. PROPERTIES OF THE SOLN. ARE DEPENDENT ON THE CONTENT OF FREE H SUB2 O. CHROMATOOG. OF HYDROLYZED ET SILICATE SOLN. IS USED TO DET. THE PROCESSES OCCURRING DURING HYDROLYSIS. ON THIS BASIS, IT IS POSSIBLE TO CHOOSE: AN OPTIMUM RECIPE, A MANNER OF HYDROLYSIS, A MEANS OF PREPN. OF SHELL MOLDS FOR EACH PROCESS VARIANT, AND A MEANS OF CONTROLLING THE COMPN. OF HYDROLYZED SOLNS. THE ADDN. OF ET SILICATE-40 DECREASED THE COST OF THE BONDING AGENT AND INCREASED THE PRODUCTIVITY OF SHELL MOLD PREPN.

UNCLASSIFIED

USSR

UDC 512.25/.26+519.3:330.115

MOSEVICH, K. K.

"Solution of Certain Maximin Problems"

Kibernetika -- na Zluzhbu Kommunizmu. T. 6 [Cybernetics in the Service of Communism, Vol 6 -- Collection of Works], Moscow, Energiya Press, 1971, pp 220-232, (Translated from Referativnyy Zhurnal, Kibernetika, No 10, 1971, Abstract No 10 V673 by L. Bregman).

Translation: A system of linear inequalities

$$\begin{aligned} Ax + By &< C + \sum_{i=1}^n D_i \alpha_i, \\ N_i \alpha_i &< M_i \quad (i = 1, 2, \dots, n), \\ x > 0, \quad y > 0, \quad \alpha_i > 0, \end{aligned} \quad (1)$$

is studied, where x, y, α_i are the dimensionality vectors of r_1, r_2 and δ_i respectively; C and M_i are constant dimensionality vectors of r_3 and γ_i ; A, B, D_i are the matrices of the corresponding dimensionalities, and the function

$$H(x, y, \alpha_1, \dots, \alpha_n) = \begin{cases} (m, x), & \text{if } x, y \text{ and } \alpha_i \text{ satisfy} \\ & \text{systems (1),} \\ \infty & \text{otherwise.} \end{cases}$$

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USSR

UDC 512.25/.26+519.3:330.115
MOSEVICH, K. K., Kibernetiku -- na Zluzhbu Kommunizmu. T. 6, Moscow, Energiya
Press, 1971, pp 220-232.

The problems of finding $\min_{x, y, \alpha} \max_{\alpha} \min_{x, y} H(x, y, \alpha)$, $\max_{\alpha} \min_{x, y} \min_{x, y} H(x, y, \alpha)$
and $\min_{x, y, \alpha} \min_{x, y} \max_{\alpha} H(x, y, \alpha)$ are solved.

USSR

UDC 547.963.3

DRABKINA, L. Ye. and MOSEVITSKIY, M. I., Physico-Technical Institute imeni
A. F. Joffe, Academy of Sciences USSR, Leningrad

"Influence of Metabolic Toxins on the Formation of the Helical Ring Form of
Lambda Phage DNA"

Moscow, Molekulyarnaya Biologiya, Vol 4, No 4, Jul/Aug 70. pp 590-597

Abstract: A study was made of the effect of metabolic toxins on the formation of the helical ring form of DNA (obtained from a lambda phage) under conditions of superinfection. It was determined that chloramphenicol (100 μ g/ml), as well as actinomycin D and proflavin (in doses up to 5 μ g/ml), did not have any real effect on the formation of helical molecules of lambda-DNA. However, in much larger doses (up to 10-15 μ g/ml), both actinomycin D and proflavin almost completely inhibited formation of helical lambda-DNA.

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1/2 018 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--STRUCTURE AND PROPERTIES OF STEEL 08KP AFTER PRELIMINARY LOADING
UNDER STRAIN -U-
AUTHOR-(04)-MAKSIMOVICH, G.G., YANCHISHIN, F.P., MOSEYCHUK, V.I.,
BARANETSKIY, V.S.
COUNTRY OF INFO--USSR
SOURCE--FIZ.-KHIM. MEKH. MATER. 1970, 6(1), 19-25
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--ALLOY DESIGNATION, STRAIN, MECHANICAL PROPERTY, ELECTRIC
RESISTANCE, RESISTIVITY, RIMMED STEEL, LOW CARBON STEEL/(U)08KP RIMMED
STEEL
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3001/0401 STEP NO--UR/0369/70/006/001/0019/0025
CIRC ACCESSION NO--AP0126156
UNCLASSIFIED

2/2 018

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0126156

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A STUDY OF THE EFFECTS OF THE PRELIMINARY LOADING UNDER STRAIN ON THE STRUCTURE AND PROPERTIES OF STEEL 08KP IS GIVEN. THE EXPTS. WERE CARRIED OUT ON WELL ANNEALED (1 HR AT 930DEGREES IN VACUUM AND FURNACE COOLED) AND POLISHED SPECIMENS; PRELIMINARY LOADING WAS CARRIED OUT IN AIR AT ROOM TEMP. BY APPLYING STRAINS SIGMA SUBP EQUALS 0, 5, 10, 15 AND 25 KG-MM PRIME2 DURING 100 HR. THE STRUCTURE OF THE PRELIMINARY LOADED SPECIMENS DIFFERS FROM THAT OF THE INITIAL (NONLOADED); FERRITE GRAIN SIZE IS DECREASED; NEW SUBGRAIN BOUNDARIES ARE FORMED, AND THE SLIP BANDS ARE VISIBLE. VICKERS HARDNESS REMAINS FOR SIGMA SUBP SMALLER THAN 10 KG-MM PRIME2 PRACTICALLY UNAFFECTED WHILE FOR SIGMA SUBP GREATER THAN 10 KG-MM PRIME2 IT INCREASES AND FOR SIGMA SUBP EQUALS 25 KG-MM PRIME2 REACHES AN INCREASE OF 35PERCENT. ELEC. RESISTIVITY FOR SMALL SIGMA SUBP (SMALLER THAN 10 KG-MM PRIME2) DECREASES AND REACHES A MIN. (SIMILAR TO 3PERCENT), BUT RISES WITH FURTHER INCREASE OF SIGMA SUBP. PRELIMINARY LOADING WITH SIGMA SUBP EQUALS 25 KG-MM PRIME2 INCREASES ALSO THE TENSILE STRENGTH 27PERCENT AND YIELD STRENGTH 54PERCENT. THE STRUCTURE OF THE PRELIMINARY LOADED SPECIMENS IN THE FRACTURE ZONE IS FINE GRAINED WHILE FOR THE INITIAL (NONLOADED) SPECIMENS THE STRUCTURE IS COARSE GRAINED.

FACILITY: FIZ.-MEKH. INST., LVOV, USSR.

UNCLASSIFIED

1/2 023 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--EMV-100L ELECTRON MICROSCOPE -U-
AUTHOR--(04)-STOYANOV, P.A., MOSEYEV, V.V., ROZORENOVA, K.M., RENSKIY, I.S.
COUNTRY OF INFO--USSR
SOURCE--PRIB. TEKH. EKSP. 1970, 1, 211-16
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--ELECTRON MICROSCOPE, PERMALLOY, OPTIC LENS, MOLYBDENUM OXIDE,
INORGANIC CRYSTAL/(U)EMV100L ELECTRON MICROSCOPE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1996/1863 STEP NO--UR/0120/70/001/000/0211/0216
CIRC ACCESSION NO--AP011327
UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0118827

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A NEW ELECTRON MICROSCOPE WITH HIGH RESOLN. IS DESCRIBED. ALL ITS LENSES ARE MADE FROM DIFFERENT TYPES OF PERMALLOY. THE COLUMN OF THE MICROSCOPE HAS HIGH MECH. STABILITY. THE THEORETICAL RESOLN. OF 2 ANGSTROM WAS REALIZED IN PRACTICE. THE ELECTRON OPTICAL MAGNIFICATION IN PHOTOGRAPHING IR PARTICLES ON A C SUBLAYER WAS 440,000 TIMES. PHOTOGRAPHS OF THE AU LATTICE, (200) PLANE, AND FRESNEL DIFFRACTION BANDS ON THE EDGE OF MOO SUB3 CRYSTALS ARE GIVEN.

UNCLASSIFIED

USSR

STOYANOV, P. A., MOSEYEV, V. V., ROZORENOVA, K. M., RENSKIY,
I. S.

"EMV-100L Electron Microscope of Limiting Resolution"

Moscow, Izvestiya Akademii Nauk, Seriya Fizicheskaya, Vol 34,
No 7, 1970, pp 1388-1395

Abstract: This article is devoted to the electron microscope model EMV-100L and its construction, specifications, and capabilities. It has an accelerating voltage of 100 kV and a resolving power equal to the theoretical limit. Its column consists of the electron gun, two condensor lenses, the objective, and an intermediate and projection lens. There is also a second intermediate lens in the form of a modification of the objective tube; it is used to obtain electronograms. The column is very stable mechanically. All lenses are made of precision permalloy of various brands and, as a result, the field dispersion in the space between the lenses is substantially reduced and its effect on the microscope's adjustment practically eliminated. The article is liberally illustrated with cross-sectional diagrams of the instrument, photographs of its external appearance, and 1/1 some of the photomicrographs made with it.

USSR

UDC 632.95

DREMOVA, V. P., NAUMOV, YU. A., and MOSEYKINA, N. F.

"Synthesis and Repellent Properties of Dialkylanides and Esters of Benzenesulfonic Acid"

Tp. BNII dezinfeksii i steriliz. (Collection of Works of All-Union Scientific Research Institute of Disinfection and Sterilization), Vol 2, Vyp 21, 1971, pp 44-45 (from Referativnyy Zhurnal -- Khimiya, Svodnyy Tom, No 19 (II), 1972, Abstract No 19N433 by T. A. Belyayeva)

Translation: In order to study the repellent properties of dialkylanides and esters of benzenesulfonic acid, the compounds with a general formula $C_6H_5SO_2NRR'$ (I) (R and R' = alkyl, or RR'' = heteroring) and $C_6H_5SO_2R''$ (II) (R'' = alkyl) were synthesized. Heating of $C_6H_5SO_2Cl$ with secondary amines in water-alkaline medium resulted in formation of I compounds. (R, R' or RR'' are given, as well as boiling point in $^{\circ}C/mm$, or boiling point in $^{\circ}C$, n_D^{20}). Compounds I were characterized by: Et, Et, 40-1, -; Bu, Bu, 144/1, 1.5060; iso-Bu, iso-Bu, 56-7, -; piperidine, 90-1, -; hexamethylenimine, 35-6, 1.5470. The reaction of $C_6H_5SO_2Cl$ with alcohols in pyridine at $\sim 20^{\circ}C$ yielded II (R'' are given, as well as boiling point in $^{\circ}C/mm$ or boiling point in $^{\circ}C$, 1/2

USSR

DREMOVA, V. P., et al., Tp. BNII dezinfektsii i steriliz., Vol 2, Vyp 21,
1971, pp 44-45

n²⁰ D): Et, 122-3, 1.5090; Pr, 126-8, 1.5060; iso-Pr, 105-7, 1.5020. The
repellent indices of I and II are given with respect to fleas and mosquitoes.

2/2

21

1/2 021 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--PLASTICIZATION OF POLY(VINYL CHLORIDE) BY SULFOLANE ESTERS AND
ETHERS -U-
AUTHOR--(05)--MOSHCHINSKAYA, N.K., BUDINSKAYA, N.N., BURYAK, I.P.,
BEZMENOVA, T.E., GOROFEYeva, R.A.
COUNTRY OF INFO--USSR
SOURCE--PLAST. MASSY 1970, (2), 43-4
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--PLASTICIZER, POLYVINYL CHLORIDE, ETHER, HETEROCYCLIC SULFUR
COMPOUND, ACETATE, OPTIC PROPERTY, FROST RESISTANCE, ESTER/(U)S2
POLYVINYL CHLORIDE RESIN
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAme--1992/1703 STEP NO--UR/0191/70/000/002/0043/0044
CIRC ACCESSION NO--AP0112697
UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0112697

ABSTRACT/EXTRACT--(U) GP-O-

ABSTRACT. POLY(VINYL CHLORIDE) RESIN S-2 (I)

WAS PLASTICIZED WITH A NO. OF SULFOLANE ETHERS, E.G.,

3, (NONYLOXY)SULFOLANE (II), 3, (DECYLOXY)SULFOLANE (III), SULFOLANE

ETHERS PREPD. FROM A MIXT. OF C SUB9-18 ALCS., AND AN ESTER, OCTYL

SULFOLANYLACETATE (IV), AT 80-90DEGREES AND AT 100-50DEGREES. I WAS BEST

PLASTICIZED WITH 50 PARTS II OR III, WHEREAS OTHER SULFOLANE ETHERS AND

IV WERE ONLY SLIGHTLY COMPATIBLE WITH I. THE PLASTICIZED I EXHIBITED

SUPERIOR LIGHT AGING RESISTANCE, WEATHERABILITY, AND FREEZE RESISTANCE.

UNCLASSIFIED

1/2 011 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--HARDENING OF EPOXY RESINS -U-
AUTHOR--(03)-OGIY, M.S., KARPENKO, L.M., MOSHCINSKAYA, N.K.
CCOUNTRY OF INFO--USSR
SOURCE--USSR 264,6E7
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,
DATE PUBLISHED--03MAR70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--EPOXY RESIN, CHEMICAL PATENT, CURING AGENT, CHLORINATED
ORGANIC COMPOUND, BENZENE DERIVATIVE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3002/1466 STEP NO--UR/0482/70/000/000/0000/0000
CIRC ACCESSION NO--AA0128865
UNCLASSIFIED

2/2 011

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AA0128865

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EPOXY RESINS ARE HARDENED BY USING
THE CONDENSATION PRODUCT OF 2,3, 5,6, TETRACHLORO, P, XYLYLENE DICHLORIDE
WITH PHENOL AS A CURING AGENT. FACILITY: DZERZHINSKII, F. E.,
CHEMICAL TECHNOLOGICAL INSTITUTE, DNEPROPETROVSK.

UNCLASSIFIED

1/2 017 UNCLASSIFIED
TITLE--GLYCIDYL ETHERS AND EPOXY RESINS -U-

PROCESSING DATE--16OCT70

AUTHOR--(02)-DZHOY, A.S., MOSHCHINSKAYA, N.K.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 264,694

REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,

DATE PUBLISHED--03MAR70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--EPOXY RESIN, CHEMICAL PATENT, ETHER, EPICHLORHYDRIN, BENZENE
DERIVATIVE, THERMAL STABILITY, HARDNESS, AROMATIC KETONE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1995/1088

STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0116554

UNCLASSIFIED

2/2 017

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AA0116554

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. GLYCIDYL ETHERS AND EPOXY RESINS WITH INCREASED THERMAL STABILITY AND HARDNESS ARE PREPD. BY CONDENSING EPICHLOROHYDRIN IN AN ALK. MEDIUM WITH 4, (4, HYDROXYPHENYL (PHENYL) METHYLENE), 2, 5, CYCLOHEXADIEN, 1, ONE, M, BIS(4, HYDROXYPHENYL (4, OXO, 2, 5, CYCLOHEXADIEN, 1, YLIDENE), METHYL) BENZENE, P, BIS(4, HYDROXYPHENYL (4, OXO, 2, 5, CYCLOHEXADIEN, 1, YLIDENE) METHYL) BENZENE, BIS(4, (4, HYDROXYPHENYL (4, OXO, 2, 5, CYCLOHEXADIEN, 1, YLIDENE) METHYL) PHENYL) BIS (HYDROXYPHENYL), METHANE, AND 4, 4PRIME, BIS(4, HYDROXYPHENYL (4, OXO, 2, 5, CYCLOHEXADIEN, 1, YLIDENE) METHYL) BENZOPHENONE. FACILITY: DZERZHINSKII, F. E., CHEMICAL-TECHNOLOGICAL INSTITUTE, ONEPROPETROVSK.

UNCLASSIFIED

Acc. Nr.:

470046196

Ref. Code: 11R0000

Moshchinskaya, N. K.

Polymeric Materials Based on Aromatic Hydrocarbons and Formaldehyde (Polimer-nyye materialy na osnove aromaticeskikh uglevodorodov i formal'degida) Kiev, Tekhnika, 1970, 255 pp (SL:1862)

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3	Arylmethylation of Aromatic Hydrocarbons. Diarylmethanes	45
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5	Use of Areneformaldehyde Condensation Products Without Additional Chemical Processing. Reactions of Areneformaldehyde Condensation Products	111
6	Polymers and Polymeric Materials Based on Areneformaldehyde Condensation Products	134
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Reel/Frame

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AM0046196

The analysis of theoretical and practical problems, connected with the production of condensation products of aromatic hydrocarbons with formaldehyde, is based on literature data and author's investigations...

The book was written for engineering-technical personnel and scientists working on problems in production of synthetic polymers and other products of organic synthesis, as well as employees of coke-chemical and petrochemical industries. It can be useful also to students specializing in chemical technology.

19781293

USSR

UDC 632.931/.4

MORSHCHATSKIY, A. A., Candidate of Biological Sciences

"Winter Wheat Root Rot and Combating It"

Moscow, Zashchita Rasteniy, No 7, 1972, p 17

Abstract: In a southern Ukrainian steppe region investigated in 1964-1970, winter wheat root rot (caused by Fusarium, Helminthosporium, and Alternaria) in the latent form was found to be spread over 46% of the area. It reduced the length of the ears and the size and number of grains per ear, causing a deficit of over 2 centners of the crop per hectare. To fight the disease, it is necessary strictly to observe crop rotation rules, plow harvest remnants deep into the ground, eradicate weeds, use resistant wheat strains, (especially Mironovskaya 808 and Bezostaya I) in larger quantities, sow at the right time, use fertilizers in proper proportions, irrigate the fields, and harvest the crop with well adjusted machines so as to prevent trauma to the grains and infection. Chemical disinfection of the seeds promotes growth of healthy shoots and delays the onset of the disease. However, it cannot prevent secondary infection. Therefore, effective prevention must include agrotechnical as well as chemical measures.

1/1

USSR

UDC 547.822.5

IVASHCHENKO, Ya. N., MOSHCHITSKIY, S. D., and DANIL'CHENKO, V. P., Institute of Organic Chemistry, Academy of Sciences, Ukrainian SSR

"Derivatives of Tetrachloropicolinic Acid"

Kiev, Ukrainskiy Khimicheskii Zhurnal, Vol XXXVII, No 5, 1971, pp 474-476

Abstract: A study was made of the reaction of ethyl ester and 3,4,5,6-tetrachloropicolinyl chloride with hydrazine hydrate. When using tetrachloropicolinic acid ester, 4-hydrazino-3,5,6-trichloropicolinic acid hydrazide is formed. Tetrachloropicolinic acid hydrazide is obtained from tetrachloropicolinyl chloride in hexane at -50 degrees, and bis-(tetrachloropiconoyl) hydrazine, in alcohol. In the absence of phosphorus pentachloride, 2,5-di-(3', 4', 5', 6'-tetrachloropyridyl-2')-1, 3, 4-oxadiazol is synthesized from the latter. The procedures for obtaining 11 derivatives of tetrachloropicolinic acid are presented; and their formulas, yields and melting points are given.

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- 75 -

USSR

M UDC 632.954-547.821

IVASHCHENKO, YA. N., MOSHCHITSKIY, S. D., KARABANOV, YU. V., and
ZALESSKIY, G. A.

"Study of Herbicidal Activity of 4-Alkylaminotetrachloropyridines"

Kiev, Khimicheskaya Promyshlennost' Ukrainy, No 3, May-Jun 70,
pp 23-24

Abstract: The authors studied the herbicidal activity of a new group of pentachloropyridine derivatives, viz. 4-amino-2,3,5,6-tetrachloropyridine and other 4-alkylamino-substituted derivatives in position 4, obtained by the interaction of pentachloropyridine with alkylamines in a medium of dioxane and methyl alcohol at 40-60°C. All the tested compounds were found to have appreciable physiological activity.

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- 95 -

UNCLASSIFIED
PROCESSING DATE--03JUL70
TITLE--REACTION OF PENTACHLOROPYRIDINE WITH ORGANOMAGNESIUM COMPOUNDS -U-
AUTHOR--IVASHCHENKO, YA.N., MOSCHITSKIY, S.D., YELISEYEVA, A.K.
COUNTRY OF INFO--USSR
SOURCE--KHIM. GETERETSIKL. SOEDIN. 1970, (1), 58-9
DATE PUBLISHED-----7C
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--CHLORINATED ORGANIC COMPOUND, PYRIDINE, ORGANOMAGNESIUM
COMPOUND, NICOTINIC ACID, CHEMICAL SYNTHESIS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1980/1700
STEP.NC--UR/C409/70/000/001/0058/0059
CIPC ACCESSION NC--APCC45782
UNCLASSIFIED

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Acc. Nr:

AP0049782

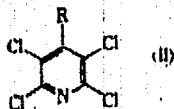
Abstracting Service:

CHEMICAL ABST. 5-70

Ref. Code:

U R 0409

100451c Reaction of pentachloropyridine with organomagnesium compounds. Iyashchenko, Ya. N.; Moshchitskii, S. D.; Eliseeva, A. K. (Inst. Org. Khim., Kiev, USSR). *Chim. Geterotsikl. Soedin.* 1970, (1), 58-9 (Russ). A soln. of 17.5 g pentachloropyridine (I) in 100 ml mixt. of abs. tetrahydrofuran and Et₂O was added dropwise to MeMgI (from 2.4 g Mg and 14 g MeI) in Et₂O and the mixt. heated 2 hr at 50-60° to give 35% 2,2',3,3',5,5',6,6'-octachloro-4,4'-bipyridine, m. 247-8° (EtOH), and 4-methyl-2,3,5,6-tetrachloropyridine (II, R = Me) (IIa). IIa was also obtained, by gradually heating 2.75 g 2,3,5,6-tetrachloropyridine-4-acetic acid 1 hr at 200°, in 95% yield. Similarly prepd. were II (R, b.p./mm, m.p., and % yield given): Me,



90°/0.02, 89-90° (EtOH + H₂O), 25; Et, 93°/0.02, 67-8° (AcOH + H₂O), 85; Pr, 94-5°/0.02, —, 62; Bu, 100°/0.07, —, 68; PhCH₂, 165°/0.15, 105-7° (EtOH), 42. To 1.15 g IIa in 30 ml H₂O at 80-90° was gradually added 1.5 g KMnO₄ during 30 hr to give 0.2 g 2,3,5,6-tetrachloroisonicotinic acid, m. 220-2° (H₂O). S. K. Banerjee —

REEL/FRA
19801700

USSR

UDC 632.95

PAVLENKO, A. F., AKKERMAN, V. P., MOSHCHITSKIY, S. D., and ZEHLYAKOVA, N. G.

"Alkoxylation of 2,3,5,6-Tetrachloro, 2-Trichloromethyl-3,5-dichloro- and 2-Trichloromethyl-3,5,6-trichloropyridyl-4-amidophosphoric Acid Dichlorides with Higher Alcohols"

Alkoksilirovaniye dikhlorangidridov 2,3,5,6-tetrakhlor-, 2-trikhlormetil-3,5-dikhlor- i 2-trikhlormetil-3,5,6-trikhlorpiridil-4-amidofosfornoy kisloty vysshimi spirtami (Cf. English above), Institute of Organic Chemistry, Academy of Sciences Ukrainina SSR, Kiev, 1972, 4 pp, ill., bibliography with one title, Manuscript No 4383-72 of 5 May 72 deposited at All-Union Institute of Scientific and Technical Information (from RZh-Khimiya, No 20, 25 Oct 72, Abstract No 20N594 Dep from Authors' summary)

Translation: For the purpose of finding new plant growth regulators, 2,3,5,6-tetrachloro-, 2-trichloromethyl-3,5-dichloro- and 2-trichloromethyl-3,5,6-trichloropyridyl-4-amidophosphoric acid dichlorides were alkoxyated with hexyl, heptyl, octyl, nonyl, decyl and cetyl alcohols. In biological tests the strongest herbicidal properties were exhibited by the dioctyl ester of 2-trichloromethyl-3,5-dichloropyridyl-4-amidophosphoric acid.

1/1

M
USSR

UDC 613.644:666.932

KUSHNARENKO, N. I., YEREMEYEV, A. M., MOSHCHANSKIY, Ya. D., and KOLOMEYETS, R. G.,
Ministry of Health USSR

"Experience in Reducing the Level of General Vibration at the Vibration Tables of
a Reinforced Concrete Plant"

Moscow, Gigiyena Truda i Professional'nyye Zabolevaniya, No 2, 1970, p 44

Abstract: The vibration tables used in snapping articles made of concrete subject
the workers to general vibrations far above permissible levels. The authors suc-
ceeded in lowering the levels to the point where vibrations could not be recorded
with a VR-1 gauge or felt by the workers. They did this by placing spring-
supported, individually fitted concrete or metal slabs under each table.

1/1

1/2 008 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--ADDITION OF DIAZOMETHANE TO BETA ETHYNYLPYRIDINES -U-
AUTHOR--(04)-TERENTYEV, P.B., MOSKVINA, T.P., MOSHENTSEVA, L.V., KOST, A.N.
COUNTRY OF INFO--USSR
SOURCE--KHIM. GETEROTSIKL. SOEDIN. 1970, (4), 498-502
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--AZO COMPOUND, METHANE, PYRIDINE, MORPHOLINE, HETEROCYCLIC
NITROGEN COMPOUND
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3006/0932 STEP NO--UR/0409/70/000/004/0498/0502
CIRC ACCESSION NO--AP0134461
UNCLASSIFIED

2/2 008 UNCLASSIFIED PROCESSING DATE--27NOV70
CIRC ACCESSION NO--AP0134661
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TO A SOLN. OF ETMGBR (FROM 4.8 G
MG AND 32.6 G ETBR) IN 120 ML TETRAHYDROFURAN (THF) WAS ADDED, DURING 1
HR, SHOWN ON MICROFICHE. FACILITY: MOSK. GOS. UNIV. IM.
LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 615.37:]576.851.46+576.852.23+576.851.551]:615.451.
13.015.2:615.831.4

IVANOV, V. G., MOSHIASHVILI, I. Ya. and TALANOVA, I. K., Institute of Pediatrics, Academy of Medical Sciences USSR; Central Institute of Health Resorts and Physiotherapy, USSR Ministry of Health; Institute of Vaccines and Sera imeni Mechnikov, Moscow

"The Effect of Prophylactic Ultraviolet Irradiation on Antibody Production in Rabbits Immunized With DPT Vaccine

Moscow, Zhurnal Mikrobiologii, Epidemiologii, i Immunologii, Vol 48, No 6, Jun 71, p 148

Abstract: The effect of the combined application of small doses of ultraviolet (UV) irradiation with DPT vaccine on the production of antibodies to the pertussis, diphtheria, and tetanus antigenic components of the vaccine was studied. Rabbits were divided into three groups. Group one, the control group, received only the vaccine in an intramuscular dose of 0.15-0.25 ml/kg, in group two the animals were irradiated with UV in increasing doses from 1/4 to 1 3/4 biodoses immediately after vaccination. In group three rabbits were given the vaccine after a course of 7-8 treatments with UV. Antibody

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USSR

IVANOV, V. G., et al, Zhurnal Mikrobiologii, Epidemiologii, i Immunologii,
Vol 48, No 6, Jun 71, p 148

titers were determined by the indirect hemagglutination method using ultrasonic erythrocyte diagnosticums (developed by Moshlashvili). It was established that ultraviolet irradiation intensified the rate of antibody formation to the three antigenic components of the vaccine, the highest rate of antibody production occurred in response to the pertussis component of the vaccine, and immunity to pertusis was retained longest in animals vaccinated after a preliminary course of UV treatment.

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- 54 -

USSR

UDC 535.373.2

KAZANSKAYA, N. A., YERMOLAYEV, V. L., MOSHINSKAYA, A. V., PETROV, A. A., and KHERUZE, YU. I.

"Rate Constants of Intramolecular Energy Transfer in Complexes of Rare Earth Ions With Aromatic Acids"

Leningrad, Optika i Spektroskopiya, Vol 28, No 6, Jun 70, pp 1150-1158

Abstract: The triplet-triplet transfer method was used to determine the rate constants for radiationless energy transfer (k_t) from an organic ligand to rare earth ions in complexes of Tb^{3+} , Eu^{3+} , Sm^{3+} , and Dy^{3+} with benzoic acid and its derivatives in methanol at 293° K. The absorption spectra of the rare earth ions in the complexes and the phosphorescence spectra of complexes with Gd^{3+} were measured, and evaluations were made of the integrals for the overlapping of the spectra for the energy donor by those of the acceptor (rare earth ion). It was found that the introduction of electron-donor substituents increases k_t and

USSR

TRIFONOV, YE. D. (Reviewer), Elementarnaya Teoriya Kolebatel'noy Struktury Primesnykh Tsentrov Kristallov, by K. K. Rebane, Moscow, "Nauka" Press, 1968, 232 pp

tween the theory of electron-vibrational transitions and the theory of the Mössbauer effect. A detailed comparison is made of the parameters characterizing the spectra of inorganic and organic phosphor crystals, on the one hand, and the Mössbauer spectrum, on the other. Chapter Four considers deviation from the Condon approximation, allowance for anharmonicity and for variations in elastic constants in electronic transition, the influence of crystal inhomogeneities.

The book contains few errors. However, some additional sections should have been included, such as one on the group-theoretical analysis of luminescence spectra. The book is written with great skill and a clear and detailed style. An English translation is supposed to appear in the near future, published by Plenum Press, New York.

1/2 006 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--SYSTEM 2NaCl PLUS ZnSO SUB4 FORMS AND IS FORMED BY Na SUB2 SO SUB4
PLUS ZHCL SUB2-H SUB2 O AT 75DEGREES -U-
AUTHOR--(02)-MOSHINSKIY, A.S., SHEVCHUK, V.G.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(4), 1109-12

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SODIUM CHLORIDE, SODIUM SULFATE, SOLUBILITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1999/1108

STEP NO--UR/0078/70/015/004/1109/1112

CIRC ACCESSION NO--AP0123100

UNCLASSIFIED

2/2 006

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0123100

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SOLY, IN THE TITLE SYSTEM WAS STUDIED AND A 3 DIMENSIONAL SOLY. DIAGRAM OF THIS SYSTEM AND A SOLY. DIAGRAM OF THE BINARY SYSTEM ZNCL SUB2-ZNSO SUB4 ARE PRESENTED. THE SYSTEM HAS CRYSTN. FIELDS OF NA₂CL, NA SUB2 SO SUB4, ZNSO SUB4 .H SUB2 O, ZHCL SUB2, MNACL.NZNCL SUB2, 3NA SUB2 SO SUB4 .ZNSO SUB4, AND 3ZNSO SUB4 .4NA SUB2 SO SUB4. THE DS. OF THESE SOLIDS ARE GIVEN.

UNCLASSIFIED

Acc. Nr.

AP0034079

Abstracting Service:
CHEMICAL ABST. 4-70

Ref. Code

UR 0078

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71196r $2\text{NaCl} + \text{ZnSO}_4 + \text{Na}_2\text{SO}_4 + \text{ZnCl}_2\text{-H}_2\text{O}$ system at 25° . Shershak, V. G.; ~~Proskurny, A. S.~~ (Katedra Khim. Poltav. Inzh.-Stroit. Inst., Poltava, USSR). Zh. Neorg. Khim. 1970, 15(1), 219-21 (Russ). Heterogeneous equil. was studied in the title system at 25° and a soly. diagram and a 3-dimensional diagram of the system were constructed. The system has 7 fields of crystn.: mirabilite, $\text{Na}_2\text{SO}_4\cdot\text{ZnSO}_4\cdot 4\text{H}_2\text{O}$, $\text{ZnSO}_4\cdot 7\text{H}_2\text{O}$, thenardite, halite, $\text{ZnCl}_2\cdot 2\text{NaCl}\cdot 3\text{H}_2\text{O}$, and $\text{ZnCl}_2\cdot 1.5\text{H}_2\text{O}$. Determ. of the limit of the $\text{ZnCl}_2\cdot 1.5\text{H}_2\text{O}$ crystn. field failed due to strong salting-out effect of ZnCl_2 on the sulfates of the system. Mirabilite has the largest crystn. field. HMJR

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Acc. Nr:

AP0043927

Abstracting Service: 5/70
INTERNAT. AEROSPACE ABST.

Ref. Code:

4R 0141

A70-23140 # Influence of an infinite ideally conducting screen with parallel impedance strips on the radiation from a longitudinal electric dipole (Vliianie beskonechnogo ideal'no provodiashchego ekrana s parallel'nymi impedansnymi polosami na izluchenie prodol'nogo elektricheskogo dipolia) A. V. Moshinskiy (Minskii Radiotekhnicheskii Institut, Minsk, Belorussian SSR).

Izv VUZ

Radiofizika, vol. 13, no. 1, 1970, p. 115-127. 12 refs. In Russian.

Solution of a problem concerning the emission from a longitudinal electric dipole positioned at an arbitrary point near an ideally conducting screen having two parallel strips with varying surface impedance. The solution is sought in the form of a Fourier integral from a series of Mathieu functions. The unknown expansion terms are determined from an infinite system of linear equations. A numerical analysis of the structure's radiation pattern is given, and pattern control by choosing the impedance and the position of the strips is demonstrated.

T.M.

MT

REEL/FRAME
19770353

21

USSR

UDC: 550.834

MOSHINSKIY, I. B., IVANOV, L. I., Institute of Geology and Development of
Fossil Fuels

"A Method of Processing Wave Information"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki,
No 7, Mar 72, Author's Certificate No 329493, Division G, filed 4 Sep 70,
published 9 Feb 72, p 183

Translation: This Author's Certificate introduces: 1. A method of processing wave information such as seismic data. The procedure is based on selection of waves by characteristics of directivity. As a distinguishing feature of the patent, the signal-to-noise ratio is increased by sequential nonsimultaneous multiplication or division (depending on the sign of adjacent amplitudes) of waveforms whose amplitudes are previously increased by unity, after which the absolute value of the repeatedly multiplied or divided amplitudes of the waveforms are reduced by unity. 2. A modification of this method distinguished by the fact that the waveforms are multiplied when their amplitudes have the same sign, and this sign is given to the product. 3. A modification of this method in which the waveforms are

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USSR

MOSHINSKIY, I. B., IVANOV, L. I., USSR Author's Certificate No 329493

divided when their amplitudes are different in sign, the dividend being the amplitude which is larger in absolute value, and the quotient being given the sign of the dividend.

2/2

- 77 -

USSR

UDC 621.732.1

BULANOV, V. Ye., MIKHAYLICHENKO, A. V., MOSKALYEV, G. A., RYBYUKOV, and SEDACH, Yu. A., Orsk-Khalilovov Metallurgical Combine

"Cermat Materials Based on Iron Powders from the Rolling Scale of 1708 and 10KHSND Steels"

Kiev, Poroshkovaya Metallurgiya, No 7, Jul 70, pp 57-61

Abstract: Iron powders from the rolling scale of 1708 and 10KHSND naturally alloyed steels were produced by combined reduction. These powders were used to produce cermet test materials both with additions of carbon, in the form of S-t graphite, and without it. The principal properties of the cermets are given for comparison with the properties of PZH2M iron powder of the same granular composition produced by the same method. A table in the original article shows the density of the specimens as a function of full compacting pressure. The shrinkage was studied in the process of sintering at 1000 and 1250° C in a dried hydrogen atmosphere for 2 hours. The results show that an increase in porosity is followed by an increase in shrinkage for all specimens regardless of composition and sintering conditions. The tests for uniaxial compression, tension, bending, and shear indicate that the tensile strength of cermets is 1/2

USSR

BULANOV, V. Ya., et al, *Vereshkovaya, Metallurgiya*, No 7, 1961, pp 57-61

alloyed iron powders is higher than the same properties of materials based on unalloyed iron powders. It was found (by metallography) that alloyed powders with zero graphite content consist of alloyed ferrite with a microhardness higher than that in the ferrite of PZh2M; an increase in the graphite content in the initial mixture raises the amount of pearlite. Additions of graphite above 2% result in cementite.

2/2

USSR

UDC 539.287

SAKANAYEV, B.A., ZEMSKOV, YE. M., TERESHCHENKO, V.N., MOSHKAREVA, N.A.

"On Stimulated Combination Scattering In SF_6 "

Kvantovaya elektronika (Quantum Electronics), Moscow, No 5(11), 1972, pp 38-50

Abstract: The preliminary results are presented of experimental studies of the processes of stimulated combination (Raman) scattering in liquid SF_6 at room temperature and a saturating vapor pressure of 23 kg/cm^2 . It is noted that SF_6 was selected as an object of study because this substance has a number of properties which are advantageous during experimentation: increased chemical stability and inertia, high elastic strength, optical transparency and sufficient uniformity in the visible and infrared regions of the spectrum. A ruby laser with a modulated figure of merit and one stage of amplification was used as a pumping source. The system made it possible to obtain a radiation pulse of 50 nanosec duration, with an energy up to 4.5 joule, a wide spectrum to 0.02 \AA , and a divergence with respect to a level of half the energy equal to $4 \cdot 10^{-2} \text{ rad}$. The excitation threshold of the first and second Stokes components were found to be 18 and 30 Mw/cm^2 , respectively. Curves are presented which show the conversion

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AKHAYEV, B. A., et al., Kvantovaya elektronika, No 5(11), 1972, pp 68-90

of pumping radiation into the Stokes components of stimulated combination scattering. The author thanks A.Z.Grauyuk for critical observations and attention to the work. 2 fig. 3 ref. Received by editors, 15 Feb 1972; after revision, 6 July 1972.

2/2

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USSR

UDC 621.382.81

MOSHKAROV, B. S. and OCHKOV, A. S.

"An Information Measurement System"

Elektron. Tekhnika, Nauch.-Tekhn. Sb. Mikroelektronika (Electronic Technology. Scientific-Technical Collection. Microelectronics), 1972 Edition 2(36) pp 117-120 (from RZh-Avtomatika Telemekhanika i Vychislitel'naya Tekhnika, No 3, Mar 73, Abstract No 3 A297 by the authors)

Translation: This work considers the requirements for information measurement systems and the basic problems which must be solved in their design. There is a discussion of the application of magnetic control contacts as commutating devices, and a relationship is given between measurement error and the time of establishment of a transient process in the input circuit of the apparatus. There is data on an information measurement system which has been developed and accepted for production. One table, two bibliographic entries.

1/1

- 12 -

MOSHKEVICH, L. D.

JPRS 55822

27 April 1972

UDC 620.18:669.784.27

MORPHOLOGY OF EUTECTIC IN Fe-N-C-ALLOYS

(Article by Yu. N. Taras, L. I. Ivanov, L. D. Moshekevich, UK-Nilapostetel' Ukrainian Scientific Research Institute of Special Steel, Moscow, 1972, Metallovedeniye i Termicheskaya Obrabotka Metalle, Russian, No 1, 1972, pp 2-6)

Fast-cutting steels of the type N15 belong to the ledeburite class, since eutectic conversion influences the formation of their structure, and many properties of cast and deformed steel [1]. The properties of cast steel depend on the amount, distribution and structure of the eutectic component. The corresponding structural characteristics of castings determine the carbide heterogeneity of rolled steel.

However, in the literature pertaining to fast-cutting steels the mechanism of crystallization and morphologic features of the eutectic are not discussed. In [2] eutectic conversion in fast-cutting steel is described as the formation of ledeburite by the following reaction: liquid (L) - austenite (A) + carbide (C). According to phase composition and morphology, however, these eutectics differ greatly in heat cases from ledeburite, such as, for instance, eutectic A + (Cr, Fe)₇C₃ formed in type N12 steels [3].

In this article are summarized the results of a study of the eutectic in Fe-N-C alloys crystallizing in fast-cutting steels (Figure 1). In these steels eutectic conversion L - A - (W, Fe)₇C₃ is the concluding stage of hardening, and the form of the eutectic colonies, and frequently their internal structures are obscured by previously formed austenite. High-carbon Fe-N-C alloys, the chemical compositions of which are presented in the table, were investigated.

The alloys were melted in magnesite crucibles on the basis of master alloys made of ferro-iron, electrode graphite and metallic tungsten. The castings (each weighing 200 g) were hardened in the crucibles at a cooling rate of ~100 deg/min or subjected to hardening-microstructural analysis by the method described in [3]. The specimens were analyzed by stereometric metallography methods.

- 1 -

[1 - USSR - 1]

USSR

UDC 669.14.018292:549.12

LITVINOVA, T. I., RAYCHENKO, T. F., PIROZHKOVA, V. P., and ~~MOSHKOVICH, L. D.~~

"Petrographic Investigation of Rough Globular Elements in ShKh15 Steel"

Moscow, Stal', No 2, Feb 71, pp 166-168

Abstract: The coarse, globular nonmetallic elements found in ShKh15 steel and determined by X-ray analysis to be largely of magnesian spinels, markedly debase the quality of the steel and adversely affect its characteristics, often leading to the discard of individual alloys. This article describes the method used by the authors to determine the phase state of these elements by the petrographic method, in which sections of the steel were examined under the microscope after metallographic study. The elements are from 100 to 150 microns in size, and were discovered in the ShKh15SG alloy as well as in the ShKh15, both manufactured by the "Dneprospetsstal" plant. They can be classified in three groups, differing in shape, reflective capability, and behavior under polarized light. Most of them had the chemical composition of $2CaO \cdot SiO_2$. The petrographic examination, yielding results which agreed closely with the X-ray study, showed that the elements correspond in phase and structure to slag, from which they probably originate.

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1/2 028 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--MEANS OF LOWERING THE TOXIC PROPERTIES OF UREA -U-

AUTHOR--(03)--MAKSAKOV, V.YA., MOSHKEVICH, V.B., MOSOLOVA, E.S.

COUNTRY OF INFO--USSR

SOURCE--VETERINARIYA (MOSCOW) 1970, 46(4), 79-80

DATE PUBLISHED-----70

SUBJECT AREAS--AGRICULTURE, BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ANIMAL HUSBANDRY, UREA, DIET, TOXICITY, PROTECTIVE COATING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3001/1908

STEP NO--UR/0346/10/046/001/0079/0080

CIRC ACCESSION NO--AP0127309

UNCLASSIFIED

2/2 028

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0127309

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TO REDUCE THE TOXIC EFFECT OF UREA AS A N SOURCE FOR RUMINANTS, 2 MEHTOS OF FEEDING UREA, USING COATING WITH SHELLAC, WERE WORKED OUT. (A) ONE KG OF UREA GRANULES OF 1-2.5 MM DIAM. IS MIXED WITH 160 ML OF 20PERCENT SHELLAC IN ETOH ACETONE (7:3) AND DRIED IN AIR. (B) THE COMBINED DIET CONTG. UREA IS PELLEDED AND COATED AS IN (A). IN EXPTS. CARRIED OUT IN BULLS WITH A RUMEN FISTUAL, FEEDING (A) OR (B) CONTG. 100 G UREA SLOWED THE RELEASE OF NH SUB3 BY 32 AND 23PERCENT, RESP., COMPARED WITH THE CONTROLS FED WITH UNCOATED DIETS. WHEN 100 G OF UNCOATED UREA WAS GIVEN, TOXIC SIGNS (SALIVATION, ATONY OF THE RUMEN, AND MUSCLE TWITCHING) APPEARED WITHIN 2 HR, WITH NH SUB3 CONCNS. IN PLASMA AND RUMEN 188 GAMMA PERCENT 61.6 MGPERCENT, RESP. NO TOXID SIGNS AND LOWER NH SUB3 LEVELS WERE SEEN IN ANIMALS FED COATED UREA (158 GAMMA PERCENT AND 48.7 MG PERCENT, RESP.). IN CHRONIC FEEDING EXPTS. WITH THE COATED DIETS (A) AND (B) FOR SIMILAR TO 100 DAYS, THERE WERE INCREASES IN THE PLASMA TOTAL PROTEIN BY 0.79PERCENT, IN N RETENTION BY 9-10PERCENT, AND IN MEAN DAILY WT. GAINS BY 9. 6PERCENT, AS COMPARED WITH THE CONTROLS. FACILITY: NAUCH.-ISSLED. INST. ZHIVOTNOVOD. LESOSTEPI POLES'YA, KHARKOV, USSR.

UNCLASSIFIED

Acc. Nr: **AP0051951**

Ref. Code: **UR0297**

PRIMARY SOURCE: Antibiotiki, 1970, Vol 15, Nr 4, pp 367-359

EXPERIENCE WITH LOCAL USE OF GLYCOCYCLINE IN CERTAIN LOR DISEASES

N. V. Gaspodanova, A. I. Kuzmina, V. S. Moshkevich, N. N. Popova, S. I. Edelshteyn

F. E. Dzerzhinsky's Polyclinic, Moscow

Acquous solutions of glycocycline at a concentration of 500 to 20.000 Units/ml and powders were used locally as ear drops, solutions for washing the sinus cavities and aerosol inhalations in the treatment of 144 lor cases with microflora sensitive to tetracycline. 110 patients suffering from exacerbated chronic pharyngo-laryngitis, sinusitis, chronic otitis and tonsillitis showed satisfactory results. The antibiotic applications were satisfactory tolerated by the patients. No severe side effects were observed.

REEL/FRA
19820438

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UDC 669.187.26

ZABALUYEV, YU. I., MOSHKEVICH, YE. I., BURYAKOVSKIY, G. A., BRODSKIY, G. N.,
and MIKULIN, A. A., Dneprospetsstal' Plant and All-Union Scientific Research
Institute of Electric Welding Equipment

"Improving the Quality of Electroslag Remelted Steel by the Action of a Magnetic
Field"

Moscow, Stal', No 8, Aug 73, pp 710-711

Abstract: The effectiveness of electroslag remelting of large ingots is lowered due to the development of segregation phenomena (formation of "barbs" in the macrostructure, etc.). Reducing the remelting rate eliminates this defect but causes deterioration of surface quality and, therefore, is permissible only in narrow limits. Electromagnetic action with the aid of a solenoid makes it possible to eliminate segregation defects and to produce metal of satisfactory quality even with a slight increase in the remelting rate. Comparative data on the quality of steels ShKh15CSH and ShKh15Sh are presented in which remelting was done in the same modes in a crystallizer measuring 415 x 415 mm with and without the solenoid. M. N. KUZNETSOV, N. A. STETSENKO, L. P., BULYSHENSKAYA, and S. S. KAZAKOV participated in this work. Two bibliographic references.

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Steels

(4)

USSR

UDC 621.643.411.4.62-192

MOISEYEV, A. A., Candidate of Technical Sciences, SUKHAREVA, V. D., Engineer, ZEMZIN, V. N., Doctor of Technical Sciences, KHITRIK, A. I., Candidate of Technical Sciences, MOSHKEVICH, Ye. I., Candidate of Technical Sciences, KOROBOCHKIN, I. Yu., Candidate of Technical Sciences, KIRVALIDZE, N. M., Candidate of Technical Sciences, PISHCHIKOV, G. P., Candidate of Technical Sciences, DEVYATKO, E. I., Engineer, All-Union "Order of the Red Banner of Labor" Scientific Research Institute of Heat Engineering imeni F. E. Dzerzhinskiy, Central Scientific Research Design and Planning Boiler and Turbine Institute imeni I. I. Polzunov, Road Construction Division, Southern Pipe Plant, All-Union Scientific Research Diesel Locomotive Institute

"Improving the Operational Reliability of Welded Joints and the Technological Properties of High-Strength EP184 Austenitic Steel"

Moscow, Teploenergetika, No 8, Aug 72, pp 46-49

Abstract: The article is a report on the results of joint research by various scientific research institutes and industrial organizations to determine what effect methods of melting EP184 steel might have on the work-

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MOISEYEV, A. A. et al., Teploenergetika, No 8, Aug 72, pp 46-49

ing reliability of welded joints as well as on the other properties of the metal. It was found that crack formation in joints can be eliminated by reducing the oxygen content, as well as the concentrations of hydrogen, nitrogen, sulfur and phosphorus below certain levels. This can be done by melting from a fresh charge with subsequent vacuum-arc remelting. Electroslag remelting can be used as well, but is less effective.

USSR

UDC 615.281.875:615.385.3.011.17

FIGAREVSKIY, V. YE., SOROKIN, A. V., YEFREMOV, O. M., KOSHKIN, S. A., and
TOLYBEKOV, A. S., Institute of Experimental Medicine, Academy of Medical
Sciences USSR, Leningrad

"Antiinfluenza Antitoxic Activity of Leucocytic Pyrogen"

Moscow, Voprosy Virusologii, No 4, Jul/Aug 72, pp 439-444

Abstract: The prophylactic effect of pyrogen obtained from rabbit leucocytes in peritoneal exudate was studied by injecting pyrogen intravenously into rabbits subsequently infected with A0/32 influenza virus. When injected 24 hours prior to viral infection, pyrogen prevented death and the tissue and vascular destruction typical of influenza intoxication. (The pyrogen also altered the body temperature pattern in response to influenza virus infection, causing disappearance of an early hypothermic phase, and development of a rapid temperature reaction.) A similar reaction was observed with injection of Newcastle disease virus prior to infection. This virus induced formation of interferon and pyrogens in rabbits. Though the mechanisms by which pyrogen increases resistance to virus in toxication are unknown and require further study, there is now an obvious connection between leucocyte products, including pyrogen, released during intoxication or infection and the increase in body resistance to virus toxin. The possibility of employing leucocytic pyrogen as a prophylactic or therapeutic agent against influenza must be studied.

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Acc. Nr.: AP0046778

Ref. Code: UR0125

USSR

UDC 621.791.03.96

SKACHKO, YU. N., MOSHKIN, V. F., GARKALYUK, R. I., POPOV, N. V., MEDVEDEV,
A. N., SKORUPSKIY, B. P., KORSHUNOV, V. A.

"High-Frequency Welding of Spiral-Seam Pipe with Butt Seam Joining"

Kiev, Avtomaticheskaya Svarka (Automatic Welding), No 1, 1970, pp 63-65
(from Avtomaticheskaya Svarka, No 1, 1970, p 80)

Translation: This article contains a study of the characteristic features of strip formation and upsetting during high-frequency welding of spiral-seam pipe with butt seam joining. New forming schemes and new designs of the mechanical units of tube welding mills are proposed. The peculiarities of welding pipe are investigated in the case of disturbance of the geometry of the initial tape. There are 4 illustrations and a 6-entry bibliography.

Reel/Frame
19790082

Gourmashenko, V. S.; Spurnoy, M. N.; Zorikov, M. M. (Institute of General and Inorganic Chemistry, Academy of Sciences, Ukrainian S.S.R.) Brit. 1,177,133 (Cl. C 01J), 07 Jan 1970, Appl. 10 Feb 1967; 3 pp. A process for prepg. Al_2O_3 is described in which nephelite rock is leached in an autoclave with an aq. NaOH soln. (500 g $Na_2O/l.$) in the presence of CaO. The temp. is 280-300°, the time is 10 min, and the CaO:SiO₂ mole ratio is 1.05:1. The mixt. is filtered, the solids are washed, and the filtrate and washings are evapd. yielding an aluminate soln. contg. 500-20 g $Na_2O/l.$ The soln. is cooled to 40-5° to crystallize aluminates which are then sepd. from the mother liquor. A portion of the mother liquor (contg. 120-30 g $Na_2O/l.$) is recycled to the autoclave; the remainder is fortified with NaOH and used

REEL/FRAME

19730105

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Acc. Nr: **AA0037185**

Abstracting Service:

CHEMICAL ABST. 3-72

Ref. Code:

UK 0000

57299v Alumina from nephelite rock and kaolin. Semen:
enko, N. P.; Sazhin, V. S.; Shor, O. I.; Moshkova, M. S.;
Chumachenko, V. S.; Shuiron, M. N.; Zorkov, M. M. (In-

AA0037185

to leach calcined (1050-150°) kaolin. The NaOH is added in an amt. calcd. to react only with the sol. part (~60%) of the SiO_2 in the kaolin. The leach liquor, comprised of a silicate soln. (contg. Na_2O 130-50, SiO_2 100-20, and Al_2O_3 2-5 g/l.), it is cooled to 20° to crystallize com. Na silicate. The leach solids, comprised of an Al_2O_3 conc. (contg. Al_2O_3 55-65, SiO_2 32-8, and impurities 2-3%) are sintered (1100-200°) with limestone and Na_2CO_3 . The sinter is cooled and leached with wash H_2O to prep. an aluminate soln. contg. 65-75 g Al_2O_3 /l. The insol. material is sepd. from the leach liquor and can be used as raw material for the manuf. of portland cement. The crvst. aluminates from the nephelite treatment are dissolved in the aluminate soln. from the kaolin treatment to prep. a soln. contg. 130 g Al_2O_3 /l. and 130 g Na_2O /l. which corresponds to the concns. in Bayer process solns. Silicates are removed from the soln. by treatment at 105° for 6 hr with $3\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot 4\text{H}_2\text{O}$. The solids are sepd. and the soln. is treated with $\text{Al}(\text{OH})_3$ to ppt. Al oxide hydrate which is sepd. and calcined to prep. Al_2O_3 . Compared with other processes for prepg. Al_2O_3 from nephelite or kaolin this process requires less evapn. of leach solns. and less NaOH.

E. C. Houston .

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19730106

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UR 0482

Soviet Inventions Illustrated, Section III Mechanical and General,
Derwent, 7-78

243423

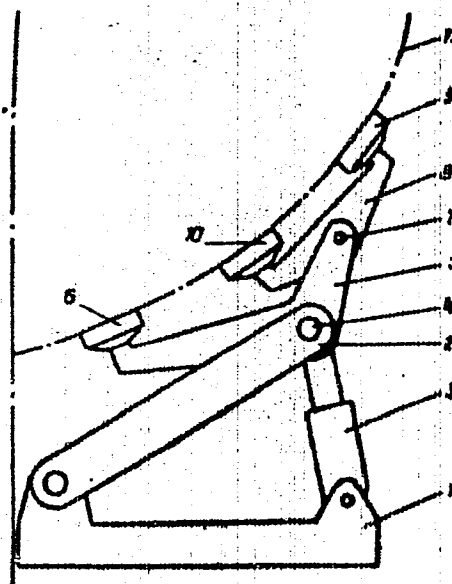
KEEL-BLOCK comprising pivoted three-link base, with a jack as one of the inclined links, has the inclined links pivoted to a lever of unequal moment arms, on the long arm of which is a support pad, and on the short arm a pivoted levelling lever with support pads on the ends. This enables the keel-block to be used at a wide variety of points on a curved hull surface, with even distribution of load. The keel-block is made with a pivoted three-link base, comprising horizontal link 1, inclined link 2 and jack 3. Pivot 4 connects link 2 and jack 3 to lever 5, the long arm of which carries support pad 6, and the short arm is connected by pivot 7 to levelling lever 8 with pads 9 and 10 on the ends. Ship 11 rests on pads 6, 9 and 10. The height of the keel-block is adjusted by jack 3, and with the ship in position its weight is evenly distributed between pads 6, 9 and 10 due to the kinematic interaction of levers 5 and 8 and jack 3.

25.4.68 as 1239495/27-11. MOSHKONOV V.V. (23.9.69)
Bul. 16/5.5.69. Class 65a, 65b, 71E. Cl. B 63b, B 63c.

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19790410

AA0046995.



19790411

USSR

UDC 530.13

M
MOSHKOV, A. D., and PECHNIKOV, A. V., Tashkent Institute of Railroad Transportation Engineers

"Use of the Continued Fraction Method for the Study of Torsional Oscillations of Multimass Systems on a Digital Computer"

Tashkent, Izvestiya Akademii Nauk Uzbekskoy SSR, Seriya Tekhnicheskikh Nauk, No 2, 1970, pp 68-71

Abstract: The article describes a program for calculating continued fractions on a medium-class digital computer (for example, the "Ural-2") for the study of free and forced torsional oscillations of a multimass system. The use of a computer speeds up the study and makes it possible to analyze different versions for the construction of mechanical, electrical, and other chain-structure systems.

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USSR

UDC 621.735.032

VORONTSOV, V. K., MOSHKOV, V. I., PETROV, V. A., and CHEKHOVA, L. I.

"On the Effect of the Forging Reduction Ratio on the Macro and Micro-Structure of Heat-Resistant E1481 Steel"

Plasticheskaya Deformatsiya Metallov i Splavov, Moscow, No 64, "Metallurgiya," 1970, pp 205-208

Translation: A study is made of the macro- and micro-structure of E1481 steel in all reductions of an ingot 500 millimeters in diameter and 1.17 tons in mass. It is established that during forging on flat hammer blocks to the point where the forging reduction ratio is nine, inadequate working of the central part of the ingot can be observed. The micro-structure is studied in the central and peripheral parts of the ingot. It is shown that the micro-structure of steel in forged pieces obtained with a forging reduction ratio less than nine is characterized by a microconsertal nature. The macro- and micro-structure of forged pieces forged in cut hammer blocks is studied, and the advantage of such technology from the point of view of cemented carbides and consertal nature is demonstrated. Four figures and two bibliographic entries.

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USSR

UDC 620.171.5

POLUKHIN, P. I., VORONTSOV, V. K., MOSHKOV, V. I., and PETROV, V. A.

"Stress-Deformation State of a Round Billet During Drawing by Flat, Combined, and Cut Hammer Blocks"

Plasticheskaya Deformatsiya Metallov i Splavov, Moscow, No 64, "Metallurgiya," 1970, pp 199-205

Translation: Using the optically sensitive coding method, a comparison was made of the stress-deformed state of round billets during drawing by flat, combined, and cut hammer blocks. It is shown that the use of combined and cut hammer blocks in forging round ingots is more expedient. The article gives practical recommendations on the selection of cut hammer blocks. Six figures and five bibliographic entries.

1/1

Cardiovascular Diseases

USSR

UDC 616.1-084:613.71

MOSHKOV, Prof. V. N., Corresponding Member Academy of Medical Sciences USSR, Moscow

"Physical Culture as a Means of Preventing the Most Important Diseases of the Cardiovascular System"

Moscow, Sovetskaya Meditsina, Vol 34, No 2, Feb 71, pp 94-100

Abstract: Data reported in the literature show that lack of exercise shortens life and results in functional disturbances, principally those of the blood circulation system. It has been found that even a few hours of rest impair regulatory functions of the organism. Physiological studies have shown that physical training increases the resistance of animals to hypoxemia and to the action of extremes of temperature, penetrating radiation, and acceleration loads as well as other external effects that greatly stress the organism. It intensifies the immunobiological response of the organism and thus increases the resistance to disease -- e.g., the resistance of animals to tuberculosis is increased. Physical training and exercise are of definite

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MOSHKOV, V. N., Sovetskaya Meditsina, Vol 34, No 2, Feb 71,
pp 94-100

importance in the prophylaxis of hypertension, atherosclerosis, and coronary insufficiency. Their beneficial effects include improved regulation of vegetative functions, increased efficiency of the circulatory system, activation of the metabolism of the myocardium, a better balance between blood coagulation and anticoagulation mechanisms, and stimulation of the development of collateral blood circulation.

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- 34 -

USSR

UDC 669.3:669.017.3

ZAKHAROVA, M. I., KAO-MIN'-T'I, and MOSHKOV, V. V., Moscow State University
imeni M. V. Lomonosov

"Phase Transformations in Decomposition of Solid Solutions in Cu-1%Be-4%Ag and
Cu-0.5%Be-1.3%Ti Alloys"

Sverdlovsk, Fizika Metallov i Metallovedeniye, Vol 33, No 6, Jun 72, pp 1243-
1248

Abstract: Electron microscopy and X-ray analysis of polycrystals and single
crystals were used to investigate phase transformations in the decomposition
of solid solutions in Cu-1%Be-4%Ag and Cu-0.5%Be-1.3%Ti (wt.%) alloys. In the
Cu-Be-Ti alloy the decomposition of the supersaturated solid solution in the
process of isothermal tempering at 212 and 300°C proceeds first by separation
of the β' -Cu₃Ti and δ' -CuBe metastable coherent phases and then by separation
of the β -Cu₃Ti and δ -CuBe equilibrium phases. Crystals of metastable phases
separate with orientations in the direction $\langle 100 \rangle$, forming a periodical struc-
ture. The decomposition of the solid solution in the Cu-Be-Ag alloy at 28 and
300°C proceeds first by separation of the δ' -CuBe metastable phase and then by
separation of the CuBe equilibrium δ -phase and Ag crystals containing a small
quantity of dissolved Cu. Three figures, twelve bibliographic references.
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CSO: 1842-W

- END -

- 65 -

USSR

UDC 541.182.2/.3:546.45

VISHNEVSKIY, Ye. P., and MOSHKOVA, L. P.

"Nomographic Method of Estimating the Intensity of Aerosol Emanations When Beryllium is Heated"

Moscow, Gigiyena i Sanitariya, No 7, 1973, pp 84-87

Abstract: When heated, beryllium evaporates and then condenses upon coming into contact with the surrounding cold air. Using formulas that take into account the temperature, thickness of the oxide film, and pressure of saturated vapor, the authors prepared a nomogram that permits quick determination of the intensity of aerosol emanations at the various temperature levels to which beryllium may be heated. The procedure is illustrated with two examples.

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- 81 -

1/2 022
TITLE--CUTTING OFF THYRISTOR DIRECT CURRENT TRANSFORMERS DURING INDUCTIVE
LOAD FEEDING -U-
AUTHOR-(02)-BARSKIY, V.A., MOSHKOVICH, B.I.
COUNTRY OF INFO--USSR
SOURCE--MOSCOW, ELEKTROTEKHNIKA, 1970, NR 2 PP 11-14
DATE PUBLISHED-----70
SUBJECT AREAS--ELECTRONICS AND ELECTRICAL ENGR.
TOPIC TAGS--THYRISTOR, ELECTRONIC TRANSFORMER, DIRECT CURRENT, ELECTRONIC
SWITCH, ELECTRONIC RECTIFIER, VOLT AMPERE CHARACTERISTIC
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1999/1224
CIRC ACCESSION NO--AP0123188
STEP NO--UR/0292/70/000/002/0011/0014
UNCLASSIFIED

2/2 022

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0123188

ABSTRACT/EXTRACT--(U) GP-O-

ABSTRACT.

RESULTS ARE PRESENTED FROM A THEORETICAL AND EXPERIMENTAL STUDY OF A REGIME WHICH IS FREQUENTLY MANIFESTED DURING THE PROCESS OF TRANSFORMER EXPLOITATION. IT IS SHOWN THAT OVERVOLTAGE AT SHUT OFF RECTIFIERS AND INDUCTIVE LOAD, WHICH ARE MANIFESTED DURING TRANSFORMER CUT OFF FROM THE SUPPLY NETWORK, ARE DETERMINED BY THE VOLTAGE DROP IN THE ARCS OF SWITCHING OFF APPARATUS. AN ANALYSIS IS GIVEN FROM THE EXPERIMENTAL STUDY OF THE VOLT AMPERE CHARACTERISTICS OF THE ARC OF A SWITCH AND THE RESULTING OVERVOLTAGE. SCHEMES FOR PROTECTION FROM OVERVOLTAGE ARE GIVEN FOR NONREVERSIBLE AND REVERSIBLE TRIPHASE AND NULL PHASE CIRCUITS FOR THE REGIME UNDER INVESTIGATION. AN ANALYSIS IS MADE OF THE PROCESSES WHICH TAKE PLACE IN THYRISTORS DURING INDUCTIVE LOAD SWITCH OFF, OVERHEATING OF THE STRUCTURE OF THE TERMINAL CONDUCTING THYRISTORS, AND THE MAXIMUM RATE OF CURRENT RISE IN SHUNTING THYRISTORS. ORIGINAL ARTICLE: FOUR ILLUSTRATIONS AND SEVEN BIBLIOGRAPHIC ENTRIES.

UNCLASSIFIED

USSR

UDC: 621.372.412

EDSHKOVSKIY, A. S.

"Investigation of Losses in the Surface Layer of Ground Quartz Piezoelectric Elements"

Elektron. tekhnika. Nauch.-tekhn. sb. Radiokomponenty (Electronic Technology. Scientific and Technical Collection. Radio Components), 1970, vyp. 5, pp 42-50 (from RZh-Radiotekhnika, No 6, Jun 71, Abstract No 6D354)

Translation: The paper presents the results of studies of losses in an oscillatory piezoelectric element in the destroyed surface layer of quartz which is formed during grinding. It is shown that an additional source of losses in a ground piezoelectric element is due to crystal lattice defects in the quartz layers with the first and second kinds of destruction, which may be eliminated by etching in hydrofluoric acid. The equivalent parameters, temperatur-frequency characteristic and aging of resonators with ground piezoelectric elements after long-term etching are no different than the corresponding factors for resonators with polished piezoelectric elements. Resumé.

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USSR

UDC 616.993.162-022.39-084.47-036.8

SERGIYEV, P. G., BEYSLEKHEM, R. I., MOSHKOVSKIY, Sh. D., DEMINA, N. A., KELLINA, O. I., SHUYKINA, E. Ye., SERGIYEV, V. P., DURHANINA, N. N., TRIYERS, I. I., SHCHERBAKOV, V. A., YARMUKHAMEDOV, M. A., USKOV, N. Ye., LOSIKOV, I. N., and NEDOSPELOVA, Ye. I., Institute of Medical Parasitology and Tropical Medicine imeni Ye I. Martsinovskiy, Ministry of Health USSR, Moscow

"Results of Mass Vaccinations against Zoonotic Cutaneous Leishmaniasis"

Moscow, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 39, No 5, Sep/Oct 70, pp 541-551

Abstract: Preventive mass vaccinations with a virulent strain of Leishmania tropica major were found to give reliable protection against cutaneous leishmaniasis. Only virulent strains can be used for vaccination. The degree of inoculation with such strains is almost 100%, the inoculative process having, as a rule, a favorable effect. The maximum size of the vaccination lesion does not exceed 2 cm in diameter in 3/4 of the subjects vaccinated. In practically all cases, the process does not last more than 5-6 months. Morbidity occurred in the group vaccinated with the low-virulence strain, among those without lesions, and among those whose lesions were less than 0.5 cm in diameter.

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USSR

SERGIYEV, P. G., et al., Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 39, No 5, Sep/Oct 70, pp 541-551

Secondary pyococcal infections represented the only complications observed; allergic exanthem was noted occasionally. In order to prevent local and general allergic reactions after vaccination, it is necessary to exclude persons who have had cutaneous leishmaniasis. If past disease cannot be revealed by means of anamnesis or medical examination, the intracutaneous leishmanin test is recommended. The level of the virulence in inoculative strains should be periodically tested, since insignificant initial virulence or its weakening during culturing make a given strain unfit for preparation of inoculum.

2/2

USSR

UDC 669.15'26'28-194:620.186

VINITSKIY, A. G., YANENSKIY, N. YE., MOSHNYAGUL, V. V., KOGAN, G. M., SHCHEGLYUK, P. S., and POKRYSHKINA, V. A., Kirovograd Institute for Agricultural Machine Building

"Influence of Structure on the Wear Resistance of Stamps Made of Kh12M Steel"

Moscow, Metallovedeniye i Termicheskaya Obrabotka Metallov, No 2, 1971, pp 74

Abstract: The influence of the structure of Kh12M steel on the wear resistance was studied as applicable to conditions of operation of dies and matrices of stamps for cutting and punching of transformer steel. It was found that Kh12M steel with austenitic structure has higher wear resistance under dry friction conditions with dynamic loading than hardened martensitic steel. Hardening from 1180-1200°C in oil and tempering at 180-220°C for 1.5-2 hr represent the optimal heat treatment mode for Kh12M steel.

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UDC 619.7:612.8

USSR

MOSIDZE, V. M., and GUGUSHVILI, M. L., Institute of Physiology, Academy of Sciences Georgian SSR

"Effect of Extirpation of the Parietal Association Areas of the Cortex of the Large Hemispheres on Short-Term Memory in Dogs"

Tbilisi, Soobshcheniya Akademii Nauk Gruzinskoy SSR, Vol 59, No 2, Aug 70, pp 433-436

Abstract: The effect of the posterior association or parietal regions of the cortex on short-term memory was studied. Results obtained in such studies in the past have been contradictory. Three dogs were presented with both visual and auditory stimuli (associated with food), and the maximum delay period after which the dogs would still react to the stimuli was determined. The anterior lateral and middle suprasylvian gyri (field 7) of the dogs' brains were then removed, and the experiments were resumed 10 to 14 days after the operation. A considerable reduction of the delay time was noted in all three dogs, and several weeks of training were required to achieve the previous performance levels. It was suggested that, for each visual or auditory stimulus perceived, the parietal regions as well as the appropriate projection zones are activated. According to the reverberation theory of the origin of short-term memory, closed neural cycles are

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USSR

MOSIDZE, V. M., et al, Soobshcheniya Akademii Nauk Gruzinskoy SSR, Vol 59. No 2, Aug 70, pp 433-436

formed between these activated regions. In other words, the parietal area may be considered one of the integral links of a complex reverberation system for the organization of short-term memory.

2/2

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1/2 034
UNCLASSIFIED
TITLE--THE ROLE OF THE CALLOSAL BODY IN TRANSMISSION OF AUDITORY
INFORMATION FROM ONE HEMISPHERE TO THE OTHER -U-
AUTHOR--(02)-MOSIDZE, V.M., KEVANISHVILI, Z.SH.
PROCESSING DATE--16OCT70
COUNTRY OF INFO--USSR
SOURCE--ZHURNAL VYSSHEY NERVNOY DEYATEL'NOSTI, 1970, VOL 20, NR 3, PP
619-625
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--BRAIN, SURGERY, ACOUSTIC DETECTION, AUDIOLOGY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1998/0060
CIRC ACCESSION NO--AP0120760
STEP NO--UR/0247/70/020/003/0619/0625
UNCLASSIFIED

USSR

UDC 535.33

YERMAKOVA, YE. G.; KRASNOVA, T. L., MALYKHINA, N. N., MOSIN, A. M.,
ONOPRIYENKO, M. I., CHERNYSHEV, YE. A., and SHPAK, M. T., Institute of Phys-
ics, Academy of Sciences Ukrainian SSR, Kiev

"Electron-Vibrational Absorption Spectra in the Near UV of Phenylsilane and
Methylphenylsilanes"

Kiev, Ukrainskiy Fizicheskij Zhurnal, Vol 17, No 5, May 72, pp 811-817

Abstract: The article describes results of a study of electronic vapor and
crystal absorption spectra for phenylsilane $C_6H_5SiH_3$ and methylphenylsilanes
 $C_6H_5SiH_2CH_3$, $C_6H_5SiH(CH_3)_2$, $C_6H_5Si(CH_3)_3$, as well as a comparison of the ef-
fect of the silicon atom on the aromatic ring with the effect of carbon in
hydrocarbon molecules similar in structure. It was found that replacement of
the carbon atom by silicon in the molecules investigated results in a 300-360
 cm^{-1} increase in the spectrum shift to the long-wavelength region and intensi-
fication of the transition considered. This indicates great distortion of
the hexagonal symmetry of the pi cloud of the phenyl ring in organosilicon

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2/2 034

CIRC ACCESSION NO--A0120760

UNCLASSIFIED

PROCESSING DATE--16OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IT HAS BEEN SHOWN IN CHRONIC
EXPERIMENTS ON INTACT DOGS THAT IN THE COURSE OF ELABORATION OF
ACOUSTIC DIFFERENTIATION NOT ONLY IN THE CONTRALATERAL BUT IN THE IPSILATERAL
HEMISPHERE AS WELL. CALLOSOTOMY RESULTS IN A DISTURBANCE OF THE
TRANSFER OF FINE ACOUSTIC DIFFERENTIATION TO THE HEMISPHERE IPSILATERAL
TO THE STIMULATED EAR. A CONCLUSION HAS BEEN DRAWN THAT ADEQUATE
TRANSMISSION OF THE MONAURAL INFORMATION TO THE IPSILATERAL HEMISPHERE
CALLS FOR INTEGRITY OF THE CALLOSAL BODY ALONG WITH THE NON CROSSING
FIBERS AND THE COMMISSURES OF THE RHOMBOID, MID AND INTERBRAIN.
FACILITY: INSTITUTE OF PHYSIOLOGY, GEORGIAN ACADEMY OF SCIENCES,
TBILISI.

UNCLASSIFIED

USSR

YERMAKOVA, YE. G., et al., Ukrainskiy Fizicheskiy Zhurnal, Vol 17, No 5,
May 72, pp 811-817

molecules as compared to the analogous hydrocarbon molecules. The spectral data suggest that there is hyperconjugation between the Si-H bonds and the phenyl ring. Electronic excitation is found to have a greater effect on the silyl group than on the alkyl group, possibly due to the $(p-d)_{\pi}$ -interaction between silicon and the π electrons of the aromatic ring.

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1/2 008
UNCLASSIFIED
PROCESSING DATE--27NOV70
TITLE--USE OF A VARIATION PRINCIPLE FOR CALCULATING THERMODYNAMIC
FUNCTIONS OF THE INTRAMOLECULAR ROTATION OF SYMMETRIC TOPS -U-
AUTHOR--(03)--MOSIN, A.M., NURULAYEV, N.G., MIKHAYLOV, A.M.
COUNTRY OF INFO--USSR
SOURCE--ZH. FIZ. KHIM. 1970, 44(5), 1359
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--THERMODYNAMIC FUNCTION, VECTOR ANALYSIS, MOLECULAR PHYSICS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3007/0875
STEP NO--UR/0076/70/044/005/1359/1359
CIRC ACCESSION NO--AP0136309
UNCLASSIFIED

2/2 008

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0136309

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE MATRIX ELEMENTS OF THE ENERGY OPERATOR CAN BE OBTAINED BY RESOLN. INTO A FINITE FOURIER SERIES. THE CHARACTER OF THE FUNCTION SYMMETRY CAN BE OBTAINED BY THE ANAL. OF PROPER VECTORS OF THE OPERATOR WHICH ENABLE THE DETN. OF THE CORRESPONDING ENERGY LEVELS AND THE CALCN. OF THE THERMODYNAMIC FUNCTIONS..

UNCLASSIFIED

1/2 C12 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--ALKYL, ARYL, CHLOROSILANE FORMATION DURING THE DIRECT REACTION OF
ALKYL, ARYL, CHLORIDES WITH SILICON. 7. CHLORINE TRANSFER MECHANISM IN
AUTHOR--(U5)-TORETSKAYA, R.A., GOLUBTSOV, S.A., ANDRIANDY, K.A., MOSIN,
A.M., PASTUKHOVA, Z.V.
COUNTRY OF INFO--USSR
SOURCE--IZV. AKAU. NAUK SSSR, SER. KHIM. 1970, (4), 802-8. M
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--CHEMICAL SYNTHESIS, CHLORINATED ORGANIC COMPOUND, SILANE,
BENZENE DERIVATIVE, ZINC COMPOUND, CADMIUM COMPOUND
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3006/1305 STEP NO--UR/0062/70/C00/C04/0802/0608
CIRC ACCESSION NO--AP0134479
UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0134979

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT.

FROM EXAMN. OF THE DIRECT

SYNTHESIS OF CHLOROSILANES OVER A CU,SI MASS, WHICH WAS EXAMD.

REPEATEDLY DURING THE REACTION FOR ITS CONTENT OF CD, CU AND ZN, IT WAS

SHOWN THAT SYNTHESIS OF PHENYLCHLOROSILANES IS DIRECTLY THE RESULT OF

FORMATION OF CUCL IN THE REACTION OF PHCL WITH CU, FOLLOWED BY REDN. BY

SI. THE CL TRANSFER TO CU, THEN TO SI, OCCURS AS A GENERAL SYMPTOM OF

DIRECT SYNTHESIS OF CHLOROSILANES IN GENERAL. PROMOTERS IN THE FORM OF

ZN OR CD OR THEIR CHLORIDES IN THE REACTION MASS APPEAR TO FUNCTION

THROUGH THE INTERMEDIATE FORMATION OF MONOCHLORIDES OF ZN AND CD AND

TRANSFER OF THE CL FROM CU TO THESE. THIS APPEARS TO BE MORE FAVORABLE

ENERGETICALLY THAN IS THE FORMATION OF CUCL FROM CU PROPER AND PHCL.

NUMEROUS KINETIC AND YIELD DATA WERE SHOWN GRAPHICALLY.

UNCLASSIFIED

USSR

UDC 621.4/.6:533.6

KALMYKOV, I. I., and MOSIN, I. I.

"Effect of Design Execution of Nozzle on the Performance of the Ejector Stage With a Conical Mixing Chamber"

Tr. Kazan. aviats. in-ta (Transactions of the Kazan' Aviation Institute), Vypusk (Issue) 114, 1970, pp 48-57 (from RZh-Mekhanika, No 12, Dec 70, Abstract No 12B464, by I. M. Baskin)

Translation: Results of an experimental study of the effect that the design execution of a working nozzle has on the performance of the ejector stage are presented. The experimental stand consisted of a two-stage ejector; supersonic conical nozzles with different design execution of the intake and outlet sections and with different-sized cylindrical sections were used as the units studied. The shape of the design elements was shown to markedly affect the ejector performance. For example, the best results correspond to use of a jet with a conical intake section and a smooth intake. It is noted that the optimal nozzle operating regime in the ejector system is the underexpansion regime.

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1/2 026
UNCLASSIFIED
TITLE--CHARACTERISTICS OF PERIPHERIC CIRCULATION IN ISCHEMIC CARDIAC
DISEASE -U-
AUTHOR--MOSIN, L.I., YAKOVLEV, V.M.
COUNTRY OF INFO--USSR
SOURCE--VRACHEBNOYE DELO, 1970, NR 3, PP 104-107
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--HEART DISEASE, BLOOD VESSEL, ATHEROSCLEROSIS, CORONARY BLOOD
CIRCULATION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1986/0979
STEP NO--UR/0475/70/000/003/0104/0107
CIRC ACCESSION NO--AP0102918
UNCLASSIFIED